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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,041	11/14/2003	Bert Bergner	21334-1282	3188

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BARLEY SNYDER, LLC
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EXAMINER

HYEON, HAE M

ART UNIT PAPER NUMBER

2839

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/714,041

Applicant(s)

BERGNER ET AL.

Examiner

Hae M Hyeon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 11 and 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/14/03 & 4/26/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of the invention I claims 1-10 in the reply filed on October 28, 2004 is acknowledged.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

3. Claims 2-10 are objected to because of the following informalities: Claims 2-10, line 1, "A connector" should be -- The connector --.
Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 6 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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The present specification does not explain what is an M.12 plug face and does not explain the connector comprising the M12 plug face.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-3, 5, 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Holt (5,478,254).

Holt discloses a connector arrangement 10 comprising a plug 12 having a housing 24, a cable 16 with at least two core pairs 15, a shield 21, contact elements 28; and a receptacle 14 having a housing 26, a cable 18 with at least two core pairs 17, a shield 22, contact elements 30. The contact elements 28 and 30 are connected to core ends of the core pairs 15 and 17, respectively. Also, the contact elements 28 and 30 are arranged in each housing 24 and 26 to correspond to the spatial arrangement of the core pairs in the cables 16 and 18 such that each core pair 15 and 17 is arranged approximately equidistantly relative to each core end and the associated contact elements 28 and 30 of at least one of the other core pairs. The shape of the shields of each connector is conformed to the plug 12 or the receptacle 14 respectively. Figure 3

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shows the shield 21 of the plug 12 is electrically connected to the shield 22 of the receptacle 14 upon plugging together. The plug 12 is screwed to the receptacle 14.

8. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by De La Cruz et al (6,616,482 B2).

De La Cruz discloses a connector comprising a connector 1 connecting to a complementary connector 3. The connector 1 is mounted on a quad cable 2, which includes four wires 4 (two core pairs). The connector 1 includes a housing 10, a shield 7, and contacts 11 that are connected to core ends of the core pairs 4. De La Cruz states that the connector 3 has a structure, which is similar to that of connector 1 (see column 3, lines 1-4). The contacts 11 are connected to core ends of the core pairs 4 and are arranged in the housing 10 to correspond to the spatial arrangement of the core pairs in the cables 2. Figures 1 and 4 show each core pair 4 being arranged equidistantly relative to each core end and the associated contact elements 11 of the at least one of the other core pairs.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 6, 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holt.

Holt does not disclose the connector being an M12 plug face circuit connector carrying direct current transmitted on two cores in addition to the differential signals or the mating

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connector being for connection to a printed circuit board as recited in claims 6, 7 and 10.

However, it is common knowledge that any electrical connector can be made to carry different signal and to use in various environment.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the connector arrangement taught by Holt such that it would be an M12 plug face circuit connector carrying direct current transmitted on two cores in addition to the differential signals and the mating connector being for connection to a printed circuit board because electrical connector can be made to carry different signal and to use in various environment. These limitations only deal with a designer's choice.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. 5,362,258 by Arnswald et al., US Patent No. 6,113,429 by Weigel et al., and US Patent No. 6,764,350 B2 by Kosmala.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hae M Hyeon whose telephone number is 571-272-2093. The examiner can normally be reached on Mon.-Fri. (8:30-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tulsidas C Patel can be reached on (571) 272-2098. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hae M Hyeon
Primary Examiner
Art Unit 2839

hnh

hnh

Hae Moon Hyeon